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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/486,744	03/01/2000	YVES TROUILHET	AD6530	9833

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E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
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WILMINGTON, DE 19805

EXAMINER	
HON, SOW FUN	
ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 08/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

DB

Office Action Summary	Application No.	Applicant(s)	
	09/486,744	TROUILHET, YVES	
	Examiner	Art Unit	
	Sow-Fun Hon	1772	

-- The MAILING DATE of this c mmunication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

Rejections Withdrawn

1. The 35 U.S.C. 103(a) rejections in Paper # 13 (mailed 02/27/03) have been withdrawn due to the new rejections set forth below.

New Rejections

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-4, 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Parks et al., as evidenced by DuPont.

Parks et al. has a paperboard laminate wherein an embodiment shows a laminate (sandwich structure) of tie layer/amorphous nylon/adhesive (tie) layer coextruded onto the inner surface of the paperboard (column 3, lines 15-20). Parks et al. teaches that the adhesive (tie) layer is an anhydride (maleic) grafted (modified) ethylene (ethyl/methyl/butyl) acrylate with a basis weight of 3.2 to 13 g/m^2 which overlaps the range of between 1 and 5 g/m^2. Parks et al. teaches that the claimed ethylene vinyl acetate, ethylene-acid copolymer adhesive materials are well known in the art as demonstrated by the cited patents incorporated by reference (column 4, lines 45-60). The layer of paper (board) has a weight of about 244 g/m^2 (150 lbs/ream) which is in the range of between 20 and 400 g/m^2 (column 4, lines 30-35).

Parks et al. teaches that the amorphous nylon is preferred due to its being suitable for coextrusion coating (column 4, lines 35-45) and that the basis weight is 6.5 to 60 g/m^2 (4-12 lbs/ream) which overlaps the range between 10 and 30 g/m^2. Because Parks et al. teaches that the amorphous nylon Selar PA 3426 has an oxygen permeability of 0.24 cc.mil/100 in^2.day.atm (column 7, lines 35-55), it is the examiner's position that the claimed oxygen barrier property of the present application in terms of 10 and 1000 cc/m^2.day.atm is met by the laminate comprising the amorphous nylon Selar PA 3426 of Parks et al.

Because DuPont teaches that the moisture barrier property of nylon Selar PA 3426 is 2.0 g/100 in^2.day.atm in terms of water vapor transmission rate (WVTR) at 23°C and 95 % relative humidity, it is the examiner's position that the claimed water vapor barrier between 100 and 1000 g/at 38°C and 90 % relative humidity of the present application in terms of g/100 in^2.day.atm in terms of water vapor transmission rate (WVTR) at 23°C and 95 % relative humidity is inherent in the laminate comprising the amorphous nylon Selar PA 3426 of Parks et al.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parks et al., as evidenced by DuPont.

Parks et al. has been discussed above and teaches the layer of grafted ethylene copolymer having a weight of between 1 and 5 g/m^2, the layer of nylon having a weight of between 10 and 30 g/m2, comprising between 5 and 100 weight % of amorphous nylon.

Parks et al. teaches that the layer of paper (board) has a weight of about 244 g/m^2 (150 lbs/ream) (column 4, lines 30-35) which is right outside the claimed range of between 20 and 400 g/m^2. Since Parks teaches that the thickness of the paper may vary (column 5, lines 5-15), it is the examiner's position that the lower weights are the result of routine experimentation.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park, as evidenced by DuPont, as applied to claim 8 above, and further in view of Zabrocki.

Parks et al. teaches that the adhesive (tie) layer is an anhydride (maleic) grafted (modified) ethylene (ethyl/methyl/butyl) acrylate (column 4, lines 45-60).but fails to teach that the layer of grafted ethylene copolymer further comprises up to 40 weight % of a copolyether, copolyetheramide or a polyurethane thermoplastic.

Zabrocki teaches adhesives which have unexpected synergistic increase in strength values over those of the individual components and yet are coextrudable (column 9, lines 30-60). The adhesive blends comprise from about 20 to about 80 weight percent thermoplastic polyurethane and from about 5 to about 50 weight percent of modified polyolefin (column 3, lines 40-45) wherein the modified polyolefin is taught to be graft olefin copolymers, a specific example being a maleic anhydride grafted ethylene/vinyl acetate copolymer blend (column 11, lines 1-30). Zabrocki teaches that the blends are flexible, have high tensile and tear strength, with good adhesion to a wide variety of plastics, useful in plastic laminating (column 9, lines 60-68).

Since both Zabrocki and Park teach the desireability of suitability for coextrusion in plastic laminating, they are analogous art.

Because Zabrocki teaches that the blends have unexpected synergistic increase in strength values over those of the individual components and yet are coextrudable, it would have been obvious to one of ordinary skill in the art to have used the claimed adhesive blend of polyurethane thermoplastic and maleic anhydride grafted ethylene vinyl acetate copolymer of Zabrocki in lieu of the maleic anhydride grafted ethylene vinyl acetate adhesive layer in the invention of Parks et al. in order to obtain a flexible laminate packaging material with improved interlaminar adhesive strength.

Response to Arguments

7. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection. However, the arguments with respect to the validity of Parks et al. as the primary reference are addressed in order to further prosecution.

8. Applicant argues that all layers are required in Parks et al. and that to select only the second, third and fourth layers is impermissible hindsight.

a. First of all, Applicant is respectfully apprised that the "comprising" claim language does not preclude other layers.

b. Secondly, Parks et al. teaches that the amorphous nylon layer applied to the inner surface of the paper substrate via a tie layer is the heart of the invention of Parks et al. since the invention is directed to laminates for non-liquid dry products as well (column 2, lines 50-

60). Beverage containers require the LDPE coat (column 2, lines 1-10). Thus for non-liquid dry products which do not require the LDPE layer, Parks et al. does not preclude the exclusion of the other layers aside from the amorphous nylon layer applied to the inner surface of the paper substrate via a grafted ethylene copolymer tie layer. The essential amorphous nylon/grafted ethylene copolymer/paperboard will then have the accompanying overall laminate oxygen barrier and water vapor transmission rate.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

SHF
Sow-Fun Hon
08/15/03

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772
8/18/03